Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules to Establish New Personal Communications Services	)	GEN Docket No. 90-314

COMMENTS OF THE
UTILITIES TELECOMMUNICATIONS COUNCIL
ON
UTAM PLAN FOR FINANCING AND MANAGING
2 GHZ MICROWAVE RELOCATION

The Utilities Telecommunications Council (UTC) hereby submits its comments on the "UTAM Plan for Financing and Managing 2 GHz Microwave Relocation," filed on August 1, 1994, in the above-captioned proceeding.[1/] As explained herein, UTC commends UTAM for its efforts in attempting to develop a plan for the relocation of incumbent microwave systems in the unlicensed personal communications service (UPCS) band and for the deployment of UPCS devices prior to band-clearing. However, UTC still has serious concerns regarding UTAM's ability to adequately control the early deployment of UPCS devices.

[1/] By Public Notice, DA No. 94-873, released August 11, 1994, comments on the UTAM Plan were invited until September 12, 1994, with Reply Comments due September 27, 1994.

As a non-voting member of UTAM, UTC has participated in several of UTAM's discussions leading to the preparation and filing of the UTAM Plan, and many of UTC's minor concerns have been addressed by UTAM in the Plan as filed. Therefore, UTC will limit its comments to UTC's more serious concerns relating to protection for incumbent microwave systems during the early deployment of UPCS devices.

Background

In the Second Report and Order in GEN Docket No. 90-314, 8 FCC Rcd 7700 (1993), the Commission designated UTAM to coordinate and manage the relocation of private microwave systems from the UPCS band. Final approval for UTAM to undertake this responsibility is conditioned on Commission acceptance of (1) an equitable funding plan, and (2) a plan for "band clearing" that will permit implementation of non-coordinatable UPCS devices as promptly as possible.

In its Memorandum Opinion and Order on reconsideration, FCC 94-144, released June 13, 1994, the Commission further clarified its conditions for the deployment of "coordinatable" UPCS devices: (1) each device must be certified as "coordinatable;" (2) each device must "incorporate means that ensure that it cannot be activated until its location has been coordinated by UTAM, Inc.;" and (3) each device "shall incorporate an automatic mechanism for disabling operation in

the event it is moved outside the geographic area where its operation has been coordinated by UTAM, Inc."[2/]

The Coordination and Location Verification Process

The UTAM Plan proposes to classify each county where UPCS devices could be deployed as either "Zone 1" or "Zone 2" for purposes of coordination with fixed microwave systems. Zone 1 counties would be those in which a certain number of UPCS devices could be deployed without interference to fixed microwave systems.[3/] Zone 1 counties would be subject to a spectrum aggregation "cap" which would limit the number of UPCS devices which could be installed in the county. Zone 2 counties would be those in which no UPCS devices could be deployed without site-specific coordination.

UTAM further proposes that, to ensure that UPCS devices are properly deployed, each UPCS device will be subject to a "Location Verification Process" (LVP). UTAM proposes that each LVP must satisfy the following criteria:

- It must be specific to each system, where system is defined as any group of fixed parts that exchange messages;
- The process must have a uniqueness feature that would be different each time the process is used;

[2/] To be codified at 47 C.F.R. §15.307(c)-(e).

[3/] Interference predictions would be based on a power aggregation formula.

- The process must not be readily replicable by unauthorized personnel either by random operation or informed operation (e.g., by observing the procedures);
- The process cannot be disabled or removed with generally available tools without rendering the equipment unusable;
- It must contain a function that reports the system size, unit power output and county of installation. If the county is a Zone 2 area or a Zone 1 area that has been "capped" by UTAM due to power aggregation limit, the process must preclude the installed equipment from operating; and
- The process must effectively prevent unauthorized operation of radiating devices.[4/]

In earlier correspondence and discussions with UTAM, UTC has questioned UTAM's ability to control the deployment of UPCS devices prior to band-clearing. UTC disagreed (and still disagrees) with UTAM's proposal to allow virtually unrestricted deployment of unlicensed PCS devices subject to a county-by-county "cap" on the number of such devices that manufacturers and vendors will be allowed to sell.

It is simply unrealistic to expect vendors or users of unlicensed PCS equipment to stop selling or deploying UPCS devices in an area once they have found market acceptance. Although UTAM has enhanced somewhat the criteria for approval of a manufacturer's LVP, UTAM's proposal continues to suffer from the same defect: UTAM's ability to control interference

---

[4/] UTAM Plan, p. 66.

to incumbent microwave systems is totally dependent on all vendors and users of UPCS devices respecting UTAM's instructions to stop selling and deploying UPCS devices in a given area.

Significantly, UTAM has proposed no means by which it can confirm whether a manufacturer is in fact following its LVP, or whether a given manufacturer is enforcing its LVP as against its dealers or customers. Once the LVP is approved by UTAM and the Commission through the equipment approval process, the deployment of UPCS devices is virtually uncontrolled. Further, UTAM will have no ability to even verify whether a given device was properly reported to UTAM and included in the spectrum "cap" for its area of operation.

UTAM's inability to control UPCS deployment is perhaps best illustrated by the procedure it intends to use to test whether a device can be relocated and operated outside of the area for which it was originally coordinated. UTAM only proposes that each device be incapable of transmitting if stored in its shipping container for eight (8) hours.[5/] Although a far cry better than the seventy-two (72) hour storage requirement originally suggested by UTAM, this test will still provide ample time for a user to relocate a UPCS

[5/] UTAM Plan, "UTAM Disablement Test Suite," Attachment F, pp.4-5.

device and will therefore have little or no effect on a user's ability to relocate a UPCS device or system from the area where it was originally coordinated and installed.

UTAM itself describes the strong consumer demand anticipated for UPCS devices as well as the ability of consumers to purchase these devices "with ease and convenience."[6/] UTAM has described the many configurations for UPCS devices and the many settings in which such devices could be used. UPCS is not simply "high end" wireless PBXs or wide area networks that will require factory installation: according to UTAM, UPCS encompasses personal digital assistants, improved cordless phones, portable facsimile machines, and a variety of other in-building or "on site" business and consumer-oriented applications. While many of these devices should not be considered "coordinatable," the Commission's definition of "coordinatable" is subject to broad interpretation and could be applied to many low-end "consumer" devices. It is therefore important that the procedures for protecting fixed microwave systems be sufficiently rigorous as to apply to even marginally "coordinatable" devices.

Given the high demand projected by UTAM for UPCS devices (many of which are residential/consumer devices), it is simply unrealistic to expect that the user will (1) take longer than

---

[6/] UTAM Plan, pp. 9-12.

eight hours to reinstall it at a new site, or (2) voluntarily notify UTAM before reactivating the device in a new area.[7/] Even for "high end" devices such as wireless PBXs, one would expect the reinstallation of a wireless PBX to take less than eight hours, given the need for business users to reestablish communications as promptly as possible and the relatively portable nature of wireless PBX technology.

Section 15.307(e) provides as follows:

> A coordinatable PCS device shall incorporate an automatic mechanism for disabling operation in the event it is moved outside the geographic area where its operation has been coordinated by UTAM, Inc. The application for certification shall contain a full description of the safeguards against unauthorized relocation and must satisfy the Commission that the safeguards cannot be easily defeated.

UTAM's proposal would allow the disablement feature to be easily defeated by simply relocating the device within eight hours or ensuring that the device is not disconnected from a commercial power source for more than eight hours at a time. Further, UTAM's proposed disablement program does not require an "automatic mechanism" for disabling operation if the device is "moved outside the geographic area where its operation has been coordinated." In fact, UTAM's disablement test has nothing to do with the location of the device.

[7/] It is also questionable whether a consumer, having invested hundreds or perhaps thousands of dollars, will respect a UTAM order not to activate the device at a new site.

It is also unclear how UTAM intends to ensure that manufacturers are reporting to it the areas in which devices are being deployed. One might even expect a manufacturer to be reluctant to report areas of high sales activity even if this data will only be released in composite form, with no identification of particular manufacturers or products. The spectrum reports to be issued by UTAM will identify markets where UPCS devices are selling well, which information could be helpful to competitors. Given manufacturers' potential incentive to under- or misreport information, UTAM's inability to verify this information is even more troublesome.

Apparently recognizing that there will not be universal compliance with its essentially voluntary sales reporting program, UTAM proposes a 10% "safety margin" in the spectrum cap for each market.[8/] However, UTAM has provided no information on how it derived the 10% figure as an adequate safety margin. Given (1) the significant economic incentives for a UPCS dealer to continue selling devices in a "hot" market irrespective of a UTAM "stop deployment" order, as well as (2) the ease with which a UPCS device could be relocated without frequency coordination, UTC believes that the "safety margin" should be substantially greater; for example, 50%. A lesser safety margin would only be appropriate if UTAM could, in fact,

---

[8/] UTAM Plan, p. 63.

verify whether each device has been properly coordinated and deployed.

Conclusion

UTAM's Plan unrealistically assumes that all manufacturers, dealers and consumers will respect UTAM's essentially unenforceable "orders" to accurately report all UPCS installations and to refrain from selling or deploying UPCS devices in certain areas. UTC therefore requests the Commission to direct UTAM to amend its plan so as to provide greater assurance that UPCS devices will only be deployed in areas where interference will not be caused to incumbent fixed microwave systems.

Respectfully submitted,

UTILITIES TELECOMMUNICATIONS COUNCIL

By: _____

Jeffrey L. Sheldon
General Counsel

Utilities Telecommunications Council
1140 Connecticut Ave., N.W.
Suite 1140
Washington, D.C. 20036
(202) 872-0030

September 12, 1994

CERTIFICATE OF SERVICE

I, Kym B. Winborne, a secretary with the Utilities Telecommunications Council, hereby certify that I have caused to be sent, by first-class mail, postage prepaid, this 12th day of September, 1994, a copy of the foregoing "Comments of the Utilities Telecommunications Council" to the following:

R. Michael Senkowski, Esq.
Wiley, Rein & Fielding
1776 K Street, N.W.
Washington, D.C. 20006
- Counsel for UTAM, Inc.

Kym B. Winborne